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PROCEEDINGS
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DESCRIPTIONS OF NEW BEETLES OF THE GENUS
PHYLLOPHAGA FROM NEOTROPICAL
REGIONS.

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The types of the new species described herein, unless otherwise indicated, are in the Saylor Collection.

Phyllophaga (*Listrochelus*) *almada*, new species.

Male.—Oblong, color shining, rufocastaneous, the head and thorax rufous, elytra subpruinose; nude above except for very minute elytral hairs. Clypeus quite long, the apex truncate, entire and somewhat reflexed, the side margins straight and slightly convergent apically, the angles narrowly rounded; disc flat and with very dense, fine punctures. Front flat, with fine and very dense punctures; transverse carina of vertex well marked. Antenna 10-segmented, rufous; club testaceous, subequal to funicle; segment 3 slightly longer than the others in the funicle. Thorax widely dilated, the sides crenate, ciliate, and straight before and behind the dilation; front and hind angles very obtuse; base completely margined; disc with very dense, fine, and regularly placed punctures separated by about their own diameters. Scutellum punctate at sides. Elytron with four narrow discal striae besides the sutural, each weakly indicated; disc with fine and dense punctures and very minute hair. Pygidium very convex; apical third polished and very sparsely punctate, basal two-thirds pruinose and finely, densely punctate, with short, suberect hairs; apex wide, truncate, and not ciliate. Abdomen pruinose and very widely flattened at middle, disc with dense though very fine punctures and very short erect hairs; 5th sternite in apical half very shallowly foveate and hardly punctate; with a patch of long and erect hairs near the sides; 6th sternite longer than the 5th, becoming at each side a strong, acute tooth perpendicularly to the segment, each tooth as long as the 5th sternite; the two teeth are separated from each other by a distance equal to half the length of the hind tibia, and the area between them is smooth and nearly flat, the segment being punctured and hairy only along a narrow band at the apex. Front tarsus long, mid and hind tarsi shorter than their respective tibiae. All claws short,

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robust, and with a double row of short, pectinate teeth, without larger intercalated teeth. Hind tibia slightly more pilose within than usual; the tarsus rather densely hairy beneath and the first two segments subequal in length. Middle tarsus not unusually hairy. Mentum concave. Length 12.5 mm.

The unique male *Holotype* is from "Cuidad Obregon, Sonora, Mexico, July, 1940, R. G. Almada." I take pleasure in naming the species after Señor Almada who collected and presented this and other valuable melolonthine species to me. The species can be confused only with *L. trochanter* Saylor from Arizona but differs especially in the much more obvious teeth of the 6th abdominal sternite, in the normal-sized trochanters, and in being smaller.

Phyllophaga (Phyllophaga) temascalis, new species.

Male.—Robust, oblong-oval; color piceocastaneous and somewhat dull; slightly pruinose above. Clypeus long and flat, apex hardly or not reflexed, and but very faintly sinuate at middle; disc coarsely and densely punctate, with short erect hair. Front densely and scabrosely punctate, with erect hairs. Antenna 10-segmented and rufotestaceous; club testaceous, about one-fourth longer than funicle but shorter than the entire stem. Thorax with sides dilated, nearly straight, ciliate and somewhat crenate; front and hind angles obtusely angulate; disc pruinose, with a median, longitudinal impunctate area, the punctures at sides and basal half small, irregularly placed, and somewhat dense, especially near the front angles, the punctures a little larger at middle; all punctures with short erect hairs and with some much longer hairs intermixed. Elytra ecostate other than sutural; disc finely, evenly punctate, with short to minute suberect hairs, and with some very long and coarse bristly hairs near the scutellum. Pygidium slightly convex, dull, densely and coarsely punctate, with short erect hairs and a few longer intercalated hairs; apex narrow, subtruncate and finely thickened. Abdomen somewhat shining, flattened and very faintly, longitudinally impressed, and sparsely setigerously punctate at middle; 5th sternite declivous in apical half, with a large, central triangular patch of coarse, setigerous granulate punctures; 6th sternite three-fifths as long as the preceding, the apical and basal margins thickened, subcarinate, and slightly interrupted at the middle; disc of 6th transversely flattened or foveate, with sparse punctures and long and erect hairs. First segment of hind tarsus much shorter than second; spurs free and very slender, shortest one as long as the first tarsal segment. Tarsal claws long and slender, the basal tooth very short and triangular, and placed slightly basad of the middle; base not dilated. Genitalia much as in *P. integra*, bilaterally symmetrical and of the complete ring-shaped type; in lateral view both the lateral angles and the median underpiece are extended and of nearly the same length. Length 16–17 mm.

The *Holotype* and three paratypes, all males, were taken at "Real de Arriba, Temascaltepec, Mexico, D. F.," and were presented to me by the collector, Dr. H. E. Hinton. The species is most closely related to *P. integra* Bates but may be distinguished by the color and the puncturation of the thorax.

***Phyllophaga (Phyllophaga) onita*, new species.**

Male.—Oblong-ovate, color rufocastaneous to piceocastaneous, slightly to distinctly pruinose above; dorsal surface completely haired. Clypeus moderately long, flat, the apex truncate and entire, hardly reflexed; disc coarsely, densely and setigerously punctate. Front coarsely, cribrately punctate, with long erect hair. Antenna 10-segmented, rufotestaceous; club small, ovate, and subequal to segments 3–7 combined. Thorax with sides dilated and straight, margin slightly to coarsely crenate, and ciliate; front angles obtusely angulate or subrectangular, hind angles obtusely angulate; disc with fine, dense punctures, those on disc separated by one and a half to twice their diameters, and somewhat closer at sides, all the punctures with very fine erect hair of moderate length and with some much longer hair intermixed. Elytra except for the sutural costa practically ecostate; disc with fine dense punctures separated by from 2–4 times their diameters, all with very short suberect hairs, with several much longer hairs near and at base. Pygidium slightly convex, partly pruinose; disc finely and moderately densely punctate, with short and long hairs intermixed. Abdomen subpruinose, flattened, slightly longitudinally impressed and finely, sparsely setigerously punctate at middle; 5th sternite slightly declivous behind, basal three-fourths with a broad triangular patch of granules; 6th slightly shorter than 5th, the basal margin thickened and subcarinate, the middle base reflexed towards the apex of the segment, thickened and bilobate, the two lobes very short, blunt and obtuse; disc of 6th transversely flattened, sparsely punctate, with erect hairs. Claws long, basal tooth short, triangular, and situated a little basad of the middle; base of claw hardly dilated. First segment of the hind tarsus shorter than second; spurs free and graceful. Front tarsal segments each with a short blunt spine at the inner side of apex. Genitalia bilaterally symmetrical, of the complete ring-shaped type; in enface view the lateral angles are moderately separated and acute, the median underpiece bidentate and the teeth fairly long.

Female.—Thorax less densely punctate; antennal club very ovate and equal to segments 4–7 combined; pygidium a little more narrowed apically than in male; abdomen polished and slightly convex, the 5th and 6th sternites plane and sparsely and setigerously punctate; claw tooth a little more median in position; otherwise similar to male. Length 14.5 to 16.5 mm.

The *Holotype* male, *Allotype* female and two male paratypes are from "C. Valle, Temascaltepec, Mexico, D. F., collected at light in June and July 1930 by G. B. Hinton." The species resembles *P. abdominalis* Moser but differs in the non-sinuate sides of thorax and in abdominal structure. From *P. integra* Bates, this new species is distinguished by the antennal and abdominal characters.

***Phyllophaga (Phyllophaga) hintonella*, new species.**

Male.—Elongate oval; color usually dark piceocastaneous to piceous, varying to nearly rufocastaneous in a few individuals, in the latter, how-

ever, the thorax and head always piceocastaneous; polished above and elytra nude, or with but very minute hairs. Clypeus moderately long, and the angles very broadly rounded; apex not reflexed and very narrowly though noticeably emarginate at the middle; disc very convex and exceedingly scabrose, the entire surface very rugosely, densely and contiguously punctate, and with very long erect hairs. Front densely, coarsely, and contiguously punctate, somewhat rugose, with very long and erect hairs. Antenna 10-segmented, rufous; club small and ovate, hardly equal to segments 3-7 combined. Thorax noticeably dilated at sides, the margins usually crenate, ciliate and straight, at times the sides behind the dilation are slightly sinuate; angles distinct but obtuse, the front angles at times nearly subrectangular; disc with very coarse punctures separated by from 1-2 times their diameters on the disc, smaller and closer at the sides, and also with many scattered, very small, intermixed punctures, these large punctures with long, coarse and erect hairs, and the small punctures without hairs; side margins and the area near the hind angles usually smooth and impunctate; disc at times with a small irregularly-shaped median impunctate area. Scutellum impunctate or with one or two small punctures. Elytra with costae other than the sutural not well marked; disc finely, densely and rugosely punctate, sometimes with very minute discal hairs. Pygidium subshining, very smooth, the punctures rather sparse, extremely fine, and hardly discernible, and with a little short, erect hair; apex subrounded, reflexed and ciliate. Abdomen very convex and especially so near the apex, the middle highly polished, glabrous and very finely punctate, and with a very slightly impressed, median longitudinal sulcus (frequently carried over onto the basal half of the 5th sternite); 5th sternite declivous in apical half, base smooth or sparsely punctate and the apex with a patch or transverse band of fine, granules and setigerous punctures; 6th sternite longer than the 5th and much flattened though the center is slightly convex and the apical margin is carinate, ciliate and narrowly interrupted at the middle; disc of the 6th dull, somewhat rugulose, with sparse, round, fine granules rather evenly spaced, and a little short, erect hair. First two segments of hind tarsus equal in length; spurs free. Disc of hind femur impunctate, except for the submarginal rows of setiferous punctures. Mentum shallow, longitudinally concave. Claw short and robust and very widely cleft; the basal tooth median in position and twice or more wider at middle, and very slightly longer than, the apical tooth; apical side of the basal tooth obliquely truncate at apex and the point quite sharp; base of claw distinctly angulately dilated, though still somewhat obtuse, and very narrowly separated from the basal tooth. Genitalia bilaterally symmetrical; in enface view the lateral lobes though free are in close contact at the apex, and an erect spoon-like structure arises from each apical point, these parts each long, narrow, parallel-sided and each with a small, round, flat top scarcely larger than the stem; the two structures are in contact for their entire length.

Female.—Antennal club scarcely equal to segments 4-7 combined. Pygidium very smooth and flat on disc, with extremely fine and very sparse punctures with short hairs; the disc declivous on each side from the flat

area and just before the apex the flat area is raised slightly and then drops abruptly to the apical margin (so that in lateral view it appears that part of the disc is pushed lobately forward and over the apical margin). Abdomen glabrous, highly polished and less convex than the male, with middle longitudinally impressed; 5th sternite faintly transversely impressed at apex and the latter densely and finely punctate, the base sparsely punctate; 6th slightly convex and punctate. Otherwise as in the male. Length, 14–17 mm.

The *Holotype* male and *Allotype* female are from "Temascaltepec, Mexico, D. F., April, 1931, G. B. Hinton Collector." Numerous paratypes are from the same localities and also from: "Tejulpilco, July, 1932, altitude 3960, Temascaltepec, Mexico, H. E. Hinton Collector," and "Real de Arriba, Temascaltepec, altitude 6300 feet, H. E. Hinton Collector." Named for Dr. Howard E. Hinton who, with his father, collected and presented the specimens to me. The species is near *P. hirticollis* Moser but the thorax is not confluent punctate, and the pygidial punctation is different; Moser's description of the latter makes no mention of the two sizes of thoracic puncturing. From *P. rufithorax* Moser this new species differs especially in the pygidial puncturation.

